

## WHAT IS CLAIMED IS:

## 1. A photographing apparatus comprising:

information acquisition means for acquiring radio  
information from information transmission means, the  
5 information transmission means being attached to a  
subject to store predetermined information and transmit  
the predetermined information as the radio information,  
wherein both photographing of the subject and  
acquisition of the radio information by said  
10 information acquisition means are executed on the basis  
of an operation of a common operation section.

## 2. A photographing apparatus comprising:

information acquisition means for acquiring radio  
information from information transmission means, the  
15 information transmission means being attached to a  
subject to store predetermined information and transmit  
the predetermined information as the radio information,  
wherein both image information obtained by  
photographing the subject and the radio information by  
20 said information acquisition means are acquired on the  
basis of an operation of a common operation member, and  
the image information and the radio information are  
paired and stored.

3. The apparatus according to claim 1, wherein  
25 communication to acquire the radio information from the  
information transmission means is started in a time  
before image sensing processing for executing

photographing of the subject and acquisition of the radio information, and when the communication has successfully been done, processing shifts to the image sensing processing.

5     4.     The apparatus according to claim 3, wherein the time before image sensing processing is a time after a photographing instruction operation.

5.     The apparatus according to claim 4, wherein the photographing instruction operation is to press a  
10     shutter button halfway.

6.     The apparatus according to claim 5, wherein, when the communication to acquire the radio information is started in a half-pressed state of the shutter button, and the communication has successfully been done,  
15     processing shifts to the image sensing processing when the shutter button is pressed completely.

7.     The apparatus according to claim 4, wherein the photographing instruction operation is to press a shutter button fully.

20     8.     The apparatus according to claim 7, wherein, when the communication to acquire the radio information is started in a fully pressed state of the shutter button, and the communication has successfully been done, processing immediately shifts to the image sensing  
25     processing.

9.     The apparatus according to claim 3, wherein the time before image sensing processing is a time after

selection of a radio information registration  
photographing mode and before a photographing  
instruction operation.

10. The apparatus according to claim 3, wherein the  
5 communication to acquire the radio information from the  
information transmission means is started by sending an  
excitation radio wave to the information transmission  
means.

11. The apparatus according to claim 3, wherein the  
10 information transmission means has an internal power  
supply, and when communication within a predetermined  
time and/or a predetermined number of times of  
communications can be executed upon receiving an  
instruction, the communication to acquire the radio  
15 information from the information transmission means is  
started by giving an instruction to the information  
transmission means.

12. The apparatus according to claim 3, further  
comprising means for, when the communication to acquire  
20 the radio information from the information transmission  
means has failed, warning or advising a user without  
shifting processing to the image sensing processing.

13. The apparatus according to claim 3, further  
comprising determination means for, when the  
25 communication to acquire the radio information from the  
information transmission means has successfully been  
done, determining before processing shifts to the image

sensing processing whether the radio information can uniquely be specified.

14. The apparatus according to claim 13, further comprising means for, when the radio information cannot  
5 uniquely be specified, warning or advising a user without shifting processing to the image sensing processing.

15. The apparatus according to claim 1, wherein said information acquisition means is a radio tag detector  
10 which is arranged and attached at a position where a sufficient sensitivity can be maintained when the photographing apparatus is set in a photographing direction.

16. The apparatus according to claim 15, wherein a  
15 direction of directivity of the radio tag detector attached to the apparatus is substantially the same as the photographing direction of the photographing apparatus.

17. The apparatus according to claim 1, wherein  
20 the apparatus has a normal photographing mode in which the subject is photographed and a radio information registration photographing mode in which an image obtained by photographing the subject and the radio information from the subject are acquired, and  
25 when the radio information registration photographing mode is selected, the photographing mode is automatically switched to a macro-photographing

mode.

18. A photographing method for a photographing  
apparatus which comprises information acquisition means  
for acquiring radio information from information  
5 transmission means, the information transmission means  
being attached to a subject to store predetermined  
information and transmit the predetermined information  
as the radio information, wherein

both photographing of the subject and acquisition  
10 of the radio information by the information acquisition  
means are executed on the basis of an operation of a  
common operation section.

19. A program which controls a photographing  
apparatus which comprises information acquisition means  
15 for acquiring radio information from information  
transmission means, the information transmission means  
being attached to a subject to store predetermined  
information and transmit the predetermined information  
as the radio information, wherein

20 both photographing of the subject and acquisition  
of the radio information by the information acquisition  
means can be executed on the basis of an operation of a  
common operation section.

20. A computer-readable storage medium storing a  
25 program of claim 19.

21. A photographing apparatus comprising:  
a photographing optical unit to form an image of

a subject;

image sensing means for sensing the image formed through said photographing optical unit; and

a radio tag detection device which has a  
5 directivity to detect a radio tag that is present in an image sensing direction of said image sensing means.

22. The apparatus according to claim 21, further comprising control means for controlling an image sensing operation by the photographing apparatus and a  
10 detection operation by said radio tag detection device in synchronism with each other.

23. The apparatus according to claim 22, wherein the synchronous control is executed substantially simultaneously or in a predetermined order.

15 24. The apparatus according to claim 23, wherein, in the predetermined order, the image sensing operation by the photographing apparatus is executed subsequent to the detection operation by said radio tag detection device.

20 25. The apparatus according to claim 23, wherein, in the predetermined order, the detection operation by said radio tag detection device is executed subsequent to the image sensing operation by the photographing apparatus.

25 26. The apparatus according to claim 21, further comprising storage means for storing the image sensed by said image sensing means and a detection result from

said radio tag detection device in association with each other.

27. The apparatus according to claim 26, wherein the detection result from said radio tag detection device  
5 contains at least one of radio tag ID information, a pointer to the image, an image size (vertical and horizontal sizes or the number of bytes), an image ID uniquely assigned to the image, and a date.

28. The apparatus according to claim 21, wherein a  
10 detection section of said radio tag detection device is arranged, on the photographing apparatus, near said photographing optical unit and on the same surface side as that of said photographing optical unit.

29. A photographing apparatus comprising:  
15 a photographing optical unit to form an image of a subject;

image sensing means for sensing the image formed through said photographing optical unit;

a radio tag detection device which detects a  
20 radio tag; and

display means for displaying a detection result by said radio tag detection device in accordance with an operation of an operation member to cause said image sensing means to execute an image sensing operation.

25 30. The apparatus according to claim 29, further comprising control means for controlling to inhibit the image sensing operation in accordance with the

detection result.

31. A photographing apparatus comprising:

a photographing optical unit to form an image of  
a subject;

5 image sensing means for sensing the image formed  
through said photographing optical unit;

a radio tag detection device which detects a  
radio tag; and

control means for causing said image sensing  
10 means to execute an image sensing operation when the  
radio tag is detected by said radio tag detection  
device.

32. A photographing apparatus comprising:

information acquisition means for acquiring,  
15 during a process of photographing, radio information  
from information transmission means, the information  
transmission means being attached to a subject to store  
predetermined information and transmit the  
predetermined information as the radio information; and

20 means for, when the radio information is  
acquired, storing the radio information and obtained  
image information in an information format, in which  
the pieces of information are paired, and when the  
radio information is not acquired, storing information  
25 representing that the radio information is not present  
and the obtained image information in an information  
format, in which the pieces of information are paired.



33. A photographing method for a photographing apparatus which comprises information acquisition means for acquiring, during a process of photographing, radio information from information transmission means, the  
5 information transmission means being attached to a subject to store predetermined information and transmit the predetermined information as the radio information, comprising steps of:

causing the information acquisition means to  
10 acquire, during the process of photographing, the radio information from the information transmission means attached to the subject; and

when the radio information is acquired, storing the radio information and obtained image information in  
15 an information format, in which the pieces of information are paired, and when the radio information is not acquired, storing information representing that the radio information is not present and the obtained image information in an information format, in which  
20 the pieces of information are paired.

34. A program which controls a photographing apparatus which comprises information acquisition means for acquiring, during a process of photographing, radio information from information transmission means, the  
25 information transmission means being attached to a subject to store predetermined information and transmit the predetermined information as the radio information,

executing:

processing for causing the information  
acquisition means to acquire, during the process of  
photographing, the radio information from the  
5 information transmission means attached to the subject;  
and

processing for, when the radio information is  
acquired, storing the radio information and obtained  
image information in an information format, in which  
10 the pieces of information are paired, and when the  
radio information is not acquired, storing information  
representing that the radio information is not present  
and the obtained image information in an information  
format, in which the pieces of information are paired.

15 35. A computer-readable storage medium storing a  
program of claim 34.

36. A determination apparatus comprising:

storage means for storing image information  
obtained by photographing and radio information from  
20 information transmission means in an information  
format, in which the pieces of information are paired,  
the information transmission means being attached to a  
subject of the image to store predetermined information  
and transmit the predetermined information as the radio  
25 information;

information acquisition means for acquiring radio  
information from the information transmission means

attached to an object; and

determination means for comparing the radio  
information stored in said storage means with the radio  
information acquired by said information acquisition  
5 means to determine an identity between the object and  
the subject.

37. A determination method comprising:

an information acquisition step of acquiring  
radio information from information transmission means,  
10 the information transmission means being attached to an  
object to store predetermined information and transmit  
the predetermined information as the radio information;  
and

a determination step of comparing the radio  
15 information obtained in the information acquisition  
step with radio information stored in storage means for  
storing image information obtained by photographing and  
radio information from information transmission means  
attached to a subject of the image in an information  
20 format, in which the pieces of information are paired,  
to determine an identity between the object and the  
subject.

38. A computer program comprising computer program  
codes corresponding to

25 an information acquisition processing step of  
acquiring radio information from information  
transmission means, the information transmission means

being attached to an object to store predetermined information and transmit the predetermined information as the radio information; and

5 a determination step of comparing the radio information obtained in the information acquisition step with radio information stored in storage means for storing image information obtained by photographing and radio information from information transmission means attached to a subject of the image in an information  
10 format, in which the pieces of information are paired, to determine an identity between the object and the subject.

39. A computer-readable storage medium storing a computer program of claim 38.

15 40. An article management apparatus which uses storage means for pairing radio information acquired from radio information transmission means, which is attached to an article and is capable of transmitting predetermined information as the radio information,  
20 with image information obtained by photographing the article and storing the radio information and the image information, comprising:

information acquisition means for acquiring the radio information from the radio information

25 transmission means attached to the article;

comparison means for comparing the radio information acquired by said information acquisition

means with the radio information stored in the storage means; and

display means for, when radio information that coincides with the radio information is detected by said comparison means, reading out image information paired with the radio information from the storage means and displaying the image.

41. An article management method comprising:

a step of pairing radio information acquired from radio information transmission means, which is attached to an article and is capable of transmitting predetermined information as the radio information, with image information obtained by photographing the article and storing the radio information and the image information;

an information acquisition step of acquiring the radio information from the radio information transmission means attached to the article;

a comparison step of comparing the radio information acquired in the information acquisition step with the radio information stored in the storage means; and

a display means of, when radio information that coincides with the radio information is detected in the comparison step, reading out image information paired with the radio information from the storage means and displaying the image,

wherein the article is managed on the basis of the image displayed in the display step.

42. A computer program which causes a computer to execute article management having storage means for pairing radio information acquired from radio information transmission means, which is attached to an article and is capable of transmitting predetermined information as the radio information, with image information obtained by photographing the article and storing the radio information and the image information, comprising computer program codes as:

a step of acquiring the radio information from the radio information transmission means attached to the article;

a step of comparing the radio information acquired by the information acquisition processing with the radio information stored in the storage means; and

a step of, when radio information that coincides with the radio information is detected in the comparison step, reading out image information paired with the radio information from the storage means and displaying the image.

43. A computer-readable storage medium storing a computer program of claim 42.